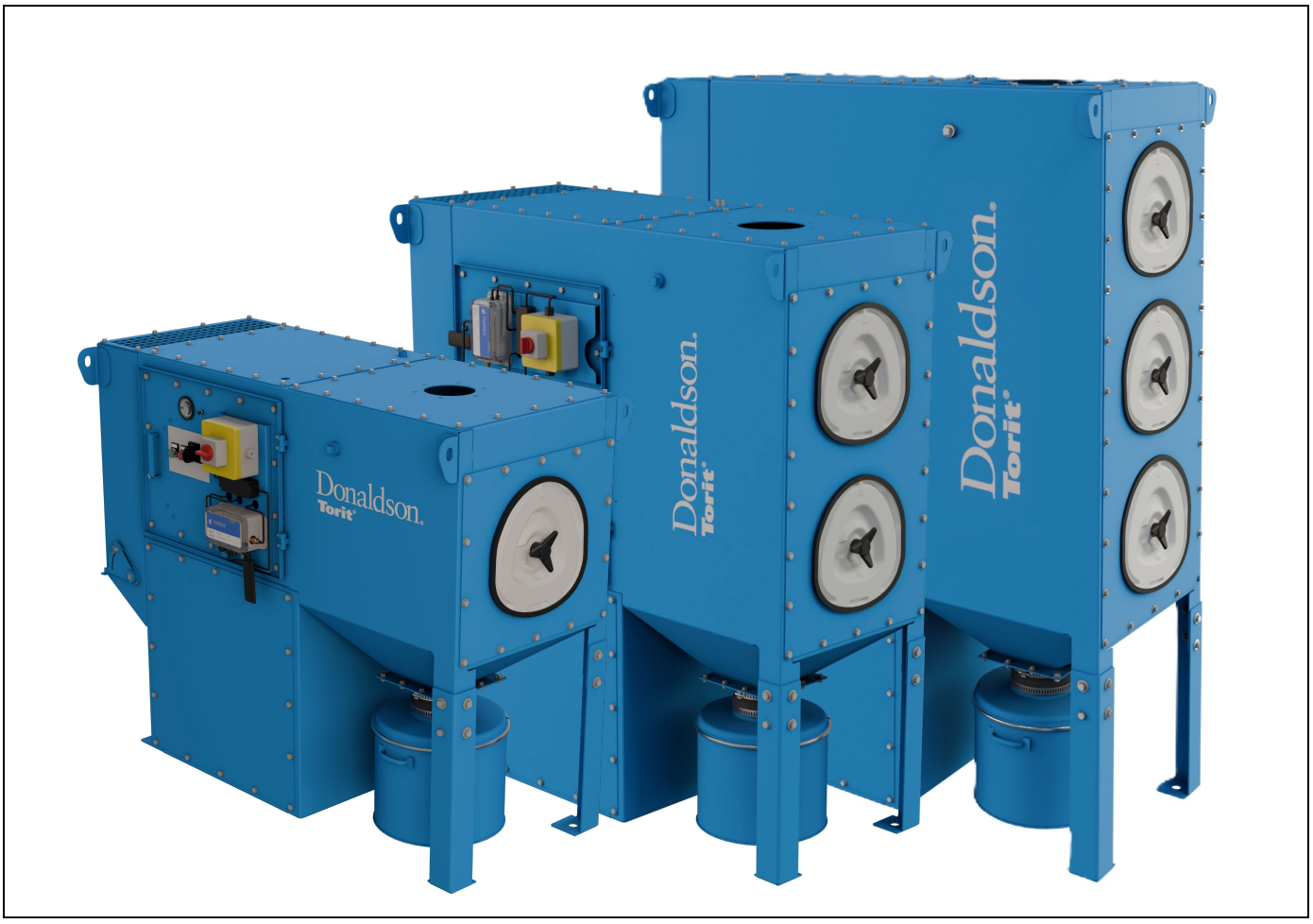
Installation , Operation And Maintenance Manual

DFPRE Dust Collector

DFPRE 1 / 2 / 3



This manual contains specific precautions related to worker safety. The hazard alert image denote safety related instructions and warnings in this manual. DO NOT install, operate, or perform maintenance on this collector until you have read and understood the instructions, precautions and warnings contained within this manual.

English
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IMPORTANT

Please read this manual carefully before installation.

This manual should be read in conjunction with the respective controller manual supplied with the dust collector.

Product reliability, warranty and safe operation may be compromised by not following the guidance given in these documents.

Applications having a risk of sparks and fires

Good Housekeeping

Accumulation of potentially combustible dust, for example dust layers is considered a potential ignition source. Failure to keep the dust collector clean and empty the hopper / dust bins regularly will increase the risk of fires and/or explosions.

Self Heating Materials

Please note that some materials have the potential to self-generate heat and hence to become an ignition source, that could result in a fire and / or an explosion (exothermic reactions). For this reason, ferrous and non-ferrous materials should not be extracted into the same dust collector, as when combined they can create a violent thermite reaction that would ignite a fire and/or explosion.

Risk of sparks and fires

Where sparks are generated by the process, this must be considered as a potential ignition source which increases the risk of a fire or explosion. The filter can be supplied with an optional spark trap to help reduce the frequency of spark ignition and should be regarded as part of a risk reducing strategy.

The spark trap is not an extinguishment system and should never be relied upon to achieve spark eradication in processes where suppression requirements are absolute. The spark trap does not guarantee complete elimination of sparks and does not preclude the possibility of fire or explosion. Therefore, system redundancy and complementary measures should be taken in conjunction with the spark trap to further reduce the risk of fire and explosion from sparks in applications where there is potential for catastrophic combustion. Flame retardant media is recommended for these type of applications.

On these types of applications, the end-user should carry out regular good housekeeping, such as:

- Periodically check for dust fall out in ducting and remove.
- Pulse down off-line regularly to minimize retention of dust cake on filter cartridges.
- Empty dust bins frequently.

Other risk reducing strategies could include:

- Inject with an inert material.
- Consider additional spark detection and fire suppression equipment.

The dust collector cannot be used in a potentially explosive atmosphere.

GENERAL SAFETY REQUIREMENTS

The collector should be stored as supplied. Only remove packaging to install. For the purposes of storage:

- *Collector with specification for inside use = IP50.*
- *Collector with specification for outside use = IP54.*

The dust collector was built in accordance with state-of-the-art standards and recognized safety rules. Nevertheless, if not handled carefully it may put people at risk and also cause damage.

The dust collector should be used only when it is in a technically acceptable condition. Regular maintenance, as set out in this manual, is required to minimize technical failure. Third party supplied components (for example motors) should be maintained according to the manufacturer's instructions.

You should ensure any persons carrying out work on the supplied equipment follow any relevant recognised standards/codes, have received adequate training and are competent to do so. Areas requiring a competent person include:

- *Regular maintenance of the unit*
- *Maintenance on any component identified as a potential ignition source.*
- *Lifting and erection.*
- *Electrical installation, inspection, and maintenance work.*
- *Pneumatic installation, inspection, and maintenance work.*
- *Any access to internal classified potentially explosive atmospheres where there may be a risk due to explosion.*
- *Dismantling and disassembling unit (Decommissioning).*

During assembly/installation or dismantling of equipment, potential ignition sources may occur that were not considered in the risk assessment of the unit in operation (for example, grinding, welding sparks, etc.)

You should use the dust collector in full accordance with the conditions set out in the Order Acknowledgment and relevant Scope of Delivery. Failure to do so may compromise product reliability, warranty and safety. The Scope of Delivery is an integral part of the manual.

Other items of equipment, not supplied under the Scope of Delivery from Donaldson, should be installed, operated and maintained according to the documentation supplied with the respective equipment.

Any modification carried out on the 'as supplied' equipment may reduce reliability and safety, and will nullify warranty; such actions fall outside the responsibility of the original supplier.

Do not use the hopper as a storage vessel. To prevent damage to the collector, care should be taken to avoid an excessive build-up of heavy materials.

Where necessary for safety, the dust collector is fitted with safety guards. Removal of these guards and any subsequent work should only be carried out after adequate precaution is taken to ensure it is safe to do so. All guards should be refitted before re-energizing.

The access door requires tools to open. To avoid danger from rotating fan impellor, ensure fan is isolated and allow sufficient time for fan to become stationary.

Do not put lit cigarettes or any burning object into the hood or ducting of any dust collection system.

Compressed air is recommended for collectors that operate using reverse jet cleaning. Alternative gases should be assessed before use to ensure that explosive atmospheres are not introduced during media cleaning.

Care should be taken to ensure that any potentially explosive atmosphere is not present when performing operations that increase the risk of ignition (opening of controller for adjustment or electrical repair for example). Ensure the installation is always returned to its original state.

All electrical equipment should comply with all applicable national and local codes.

None of the fan assemblies can be considered to be a fully sealed design, indeed most are arranged with either an open inlet or an open outlet. For this reason, the internal and external atmospheres can be considered the same in terms of any potentially hazardous classification.

Standard fan assemblies should not exceed 3000 rpm (50 Hz supply) on systems fitted with an inverter drive.

The filtration media is suitable for filtering particulate only (and not gas).

Some applications are prone to risk of fire. This risk can be reduced by pulse cleaning and emptying the dust container regularly.

- *Any extinguishing technique and material used must be suitable for the flammable nature of the dust.*
- *A water sprinkler system can be fitted as a special option.*

Materials handled by the dust collector may be hazardous (e.g. toxic). Conduct a Risk Assessment to ensure correct technique is employed.

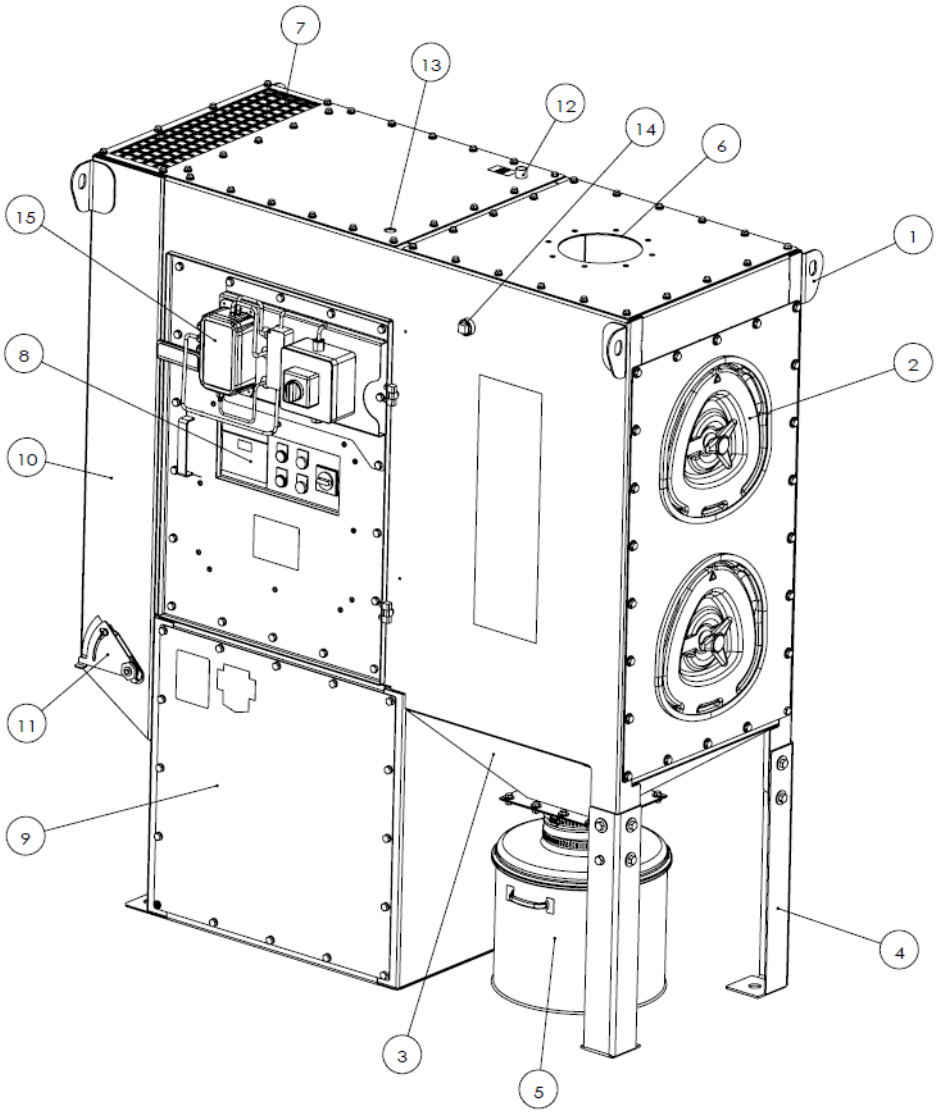
Part of the risk assessment on possible ignition sources for dust and gas mixtures with very low MIE, has considered the electrostatic risk from cone discharges. Here the basis of safety is based on using a conductive bin, dusts with a median particle size of less than 400µm and advising frequent emptying.

Regular maintenance is important for a good performance of your dust collector. A prudent user of Donaldson Torit equipment should consult and comply with all relevant Fire Codes and/or other appropriate codes when determining the location and operation of dust collection equipment.

The dust collector cannot be used in a potentially explosive atmosphere, unless stated otherwise on the nameplate of the unit and the scope of delivery.

The DFPRE dust collector cannot be used to handle potentially explosive dust.

Equipment may reach peak sound pressure levels above 80 dB (A), without the pulsing noise. Noise levels should be considered when selecting collector location.



1.Lift lug
2.Filter access cover
3.HOPPER
4.LEG
5.Dustbin
6.Inlet
7.Outlet
8.Control panel
9.Inspevtion cover
10.Exhaust plenum assembly
11.Damper valve
12.Compressed air inlet
13.Power supply cable inlet
14.Sprinkler coupling
15.ICUE（option）

Figure 1 Schematic

PRIOR TO INSTALLATION

Location

The dust collector should be located with consideration for:

- emptying the dust disposal
- shortest runs of inlet and outlet ductwork
- radius bends on elbows as big as possible
- easy access to electrical and compressed air connections
- convenience of maintenance

Consult the technical specification sheet and drawings for the dust collector weight and dimensions.

For calculating for foundation or supporting structure consider the following factors:

- the weight of the dust collector
- the material collected
- all auxiliary equipment
- live loads
- for outdoor installation: snow and wind loads

INSTALLATION

The collector is not designed to support site-installed ducts, interconnecting piping or electrical services. All ducts, piping or electrical services must be adequately supported.

All external equipment connected to the dust collector (e.g. ducting) should be correctly sealed. For non-Donaldson equipment please also check supplier's IOM manual for any specific requirements.

Strength of ducting should match with capability of the fans ducting. The collector is not designed to support site-installed ducts, interconnecting piping, or electrical services. All ducts, piping, or electrical services must be adequately supported.

Required tools and equipment

- Crane/forklift
- Slings/clevis pins and adequate lifting equipment
- Standard tools (e.g. screwdrivers, wrenches etc.)
- Drill
- Sealant

Delivery and inspection

The collector is usually supplied in one piece. Depending on your order, the following parts are shipped loose:

- Dust disposal system
- Support structure
- Transition pieces
- Fan set (if not pre-mounted)
- Spare parts
- Hardware and sealant
- Paint can and brush
- Compressed air filter regulator (if selected as option)

Compare the parts received against the packing list. If there is any damage or parts missing, notify the delivery company and your local Donaldson representative.

Location considerations

The collector should be located with consideration for:

- Emptying the dust container.
- Shortest runs of inlet and outlet ductwork with radius bends on elbows as large as possible.
- Easy access to electrical and compressed air connections.
- Convenience of maintenance.

When calculating for foundations or support structure consider the following:

- The weight of the dust collector
- The material being collected
- All auxiliary equipment
- Live loads
- Snow and wind loads on outside installations

For collector weights and dimensions refer to the datasheet.

General guidance to lifting

The collector should be lifted using either the four-point lifting arrangement or the fork-lifting arrangement by a qualified competent person (refer to figures 2 and 3).

During all lifting operations a crane or forklift with an adequate SWL (safe working load) must be used. (Refer to lifting label located adjacent to lifting points for weight of equipment supplied by Donaldson).

When using the four-point lifting method, chains or slings with an adequate SWL (safe working load) must be used. (Refer to lifting label located adjacent to lifting points for weight of equipment supplied by Donaldson). Chains must be long enough to ensure that the included angle between diagonal chains is not greater than 90° (refer to figure 2)).

Care should be taken as the unit might have a high center of gravity.

Before unloading, remove all packing and strapping.

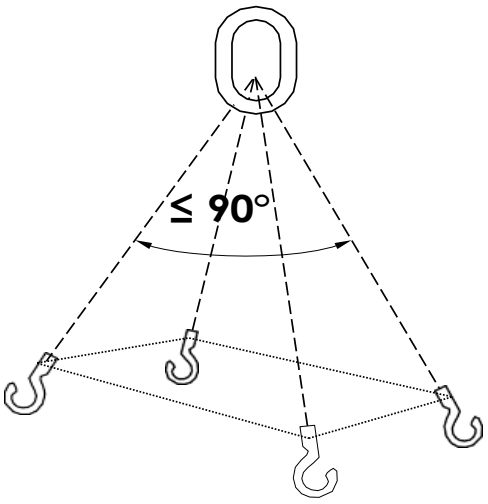


Figure 2: Four-point lifting arrangement

Positioning the collector

1. Lift the collector into position following the general guidance to lifting.

Take care not to damage dust container and cables when using forklift method.

2. Using spirit levels, line up both horizontally and vertically, using shims where required.
3. Secure the collector to the foundation anchor bolts (4 located in the fan box and 2 in the legs, see figure 3).

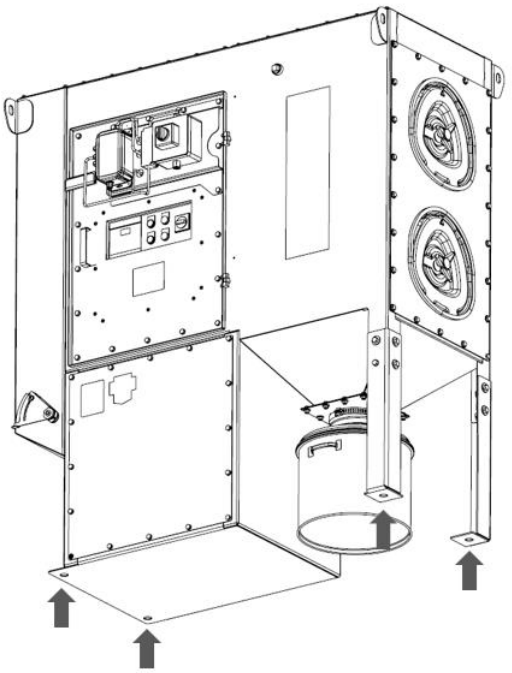


Figure 3: Anchor bolt hole locations

Provisional anchor bolt recommendations

- Consider Hilti HIT-HY 200 Anchor System or equivalent. Quantity of anchor bolts should match the number of holes provided in the base plates.
- Anchor diameter is typically 3 mm less than baseplate hole diameter.
- Corrosive environment or outdoor installation may require stainless steel anchors.

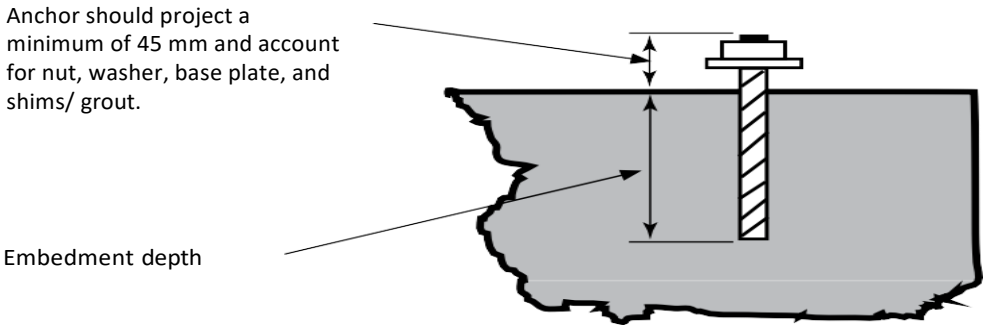


Figure 4: Typical foundation anchor

Compressed air installation

Turn compressed air supply OFF, bleed and lock out lines before performing service or maintenance work.

A safety exhaust valve should be used to isolate the compressed air supply. The safety exhaust valve should completely exhaust pressure in the collector manifolds when closed, should be capable of being interlocked with fire or explosion mitigation equipment and should include provisions to allow closed-position locking.

Do not set compressed-air pressure above 6 bar as component damage can occur.

All compressed air components must be sized to meet the system requirements of supply pressure.

The compressed-air supply must be oil and moisture free. Contamination in the compressed air used to clean filters will result in poor cleaning, cleaning valve failure, or poor collector performance.

Purge compressed-air lines to remove debris before connecting to the collector's compressed-air manifold.

1. Remove the pipe plug from the collector's air manifold and connect the compressed-air supply lines. Use thread-sealing tape or pipe sealant on all compressed-air connections.

2. Install a shut-off valve, bleed-type regulator with gauge, filter, and automatic condensate valve in the compressed-air supply line.

3. Set compressed-air supply pressure to a level suitable for the filters.

4. The pulse-cleaning controls are factory set to clean one or more filters every 10-seconds during a cleaning cycle.

Turn power off and lock out all power before performing service or maintenance work.

Turn compressed air supply OFF, bleed and lock outlines before performing service or maintenance work.

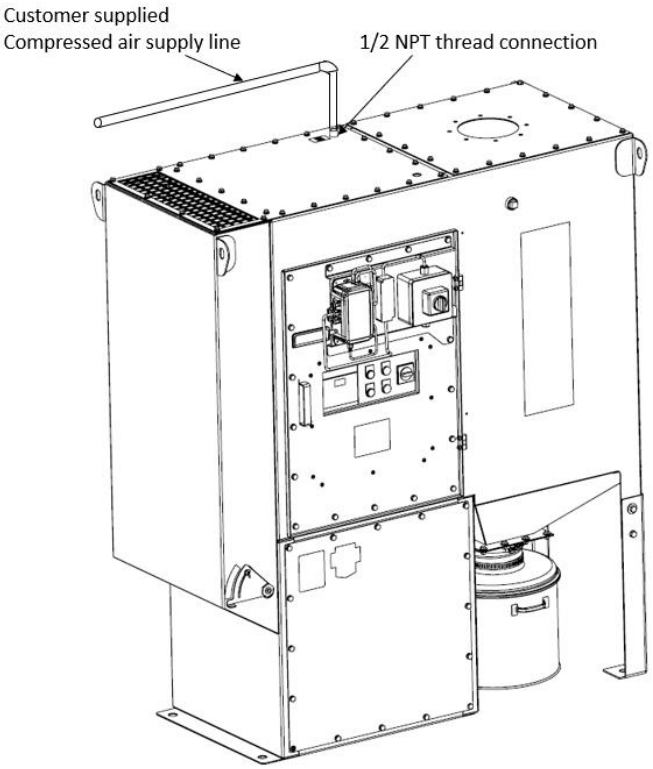


Figure5: Compressed air installation

Exhaust Damper

When starting DFPRE collector, set the exhaust damper valve at 35° deg.

Turn the collector on and measure airflow.

Adjust the exhaust damper valve (higher for less flow, lower for more flow) until the designed airflow is reached. Lock the damper in place.

Once the Delta P controller reads 2.0, the filter is sufficiently primed and the damper valve can be moved into the fully open position.

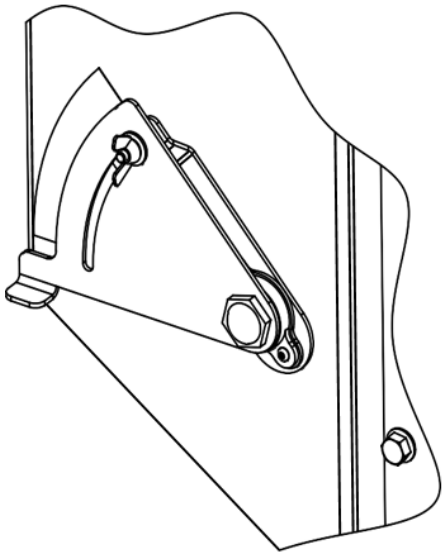


Figure6: Exhaust Damper Adjustment

Optional iCue Gateway installation

The iCue Gateway should not be used to detect, monitor, warn, or alert personnel to hazards, potential safety issues, or combustion risks. Users should not rely on readings from the product to provide emergency or hazard prevention or for emergency response activities and decisions. Users remain solely responsible for maintaining a safe work environment. All dust collection equipment and accessories should be operated and maintained in accordance with the manufacturer's instructions.

Smart collectors are designed with connectivity in mind through the iCue platform. The platform utilizes an iCue Gateway that captures data from sensors and transmits it wirelessly via a cellular connection to the web-based Donaldson iCue application. This platform operates independently of the dust collector control system.

The iCue Gateway utilizes internal sensors for sensing filter differential pressure, airflow data and compressed air pressure of the cleaning manifold. The gateway also has inputs for Donaldson approved optional sensors. The platform utilizes a cellular connection to transmit sensor data to the Donaldson iCue application. The cellular data plan and preinstalled SIM card are provided by Donaldson. The SIM card will only work with Donaldson's service and should not be removed.

For additional installation information on the iCue Gateway operation or instruction on connecting additional sensors, refer to the installation and operation manual for the iCue Gateway.

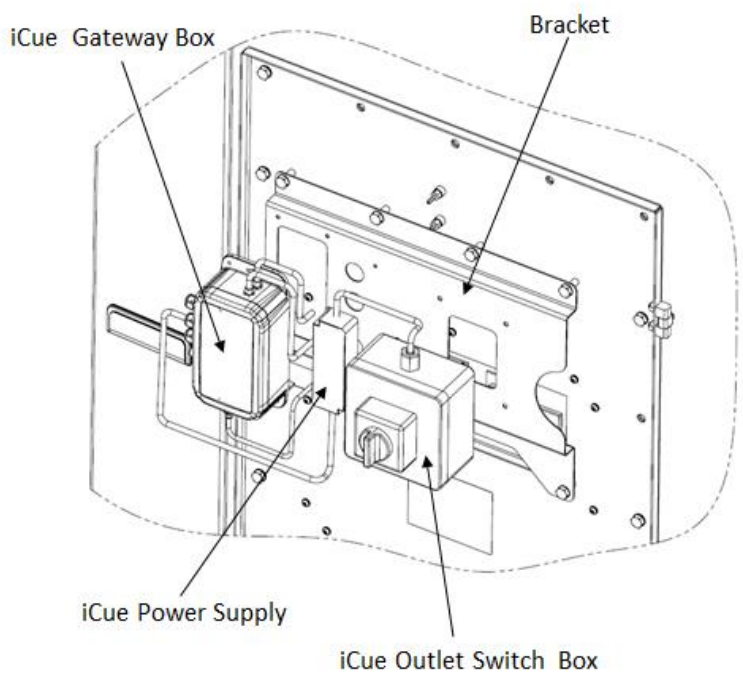


Figure 7: iCue Gateway installation

Optional HEPA Afterfilter installation

On the DFPRE 1/2/3 collector the HEPA filter assembly, if supplied, is a separate item and should be installed as follows:

1. Turn supply power off.
2. Select the CAP cover assembly for mounting HEPA, and install the cover.
3. Install the CAP cover assembly, apply sealant to ensure the seal.
4. Position the HEPA filter on the mounting frame on top of the CAP outlet and align with the latches.
5. Secure with the latches.
6. Reset exhaust damper to fully closed position.
7. Turn collector on.
8. Adjust airflow using the airflow control damper.

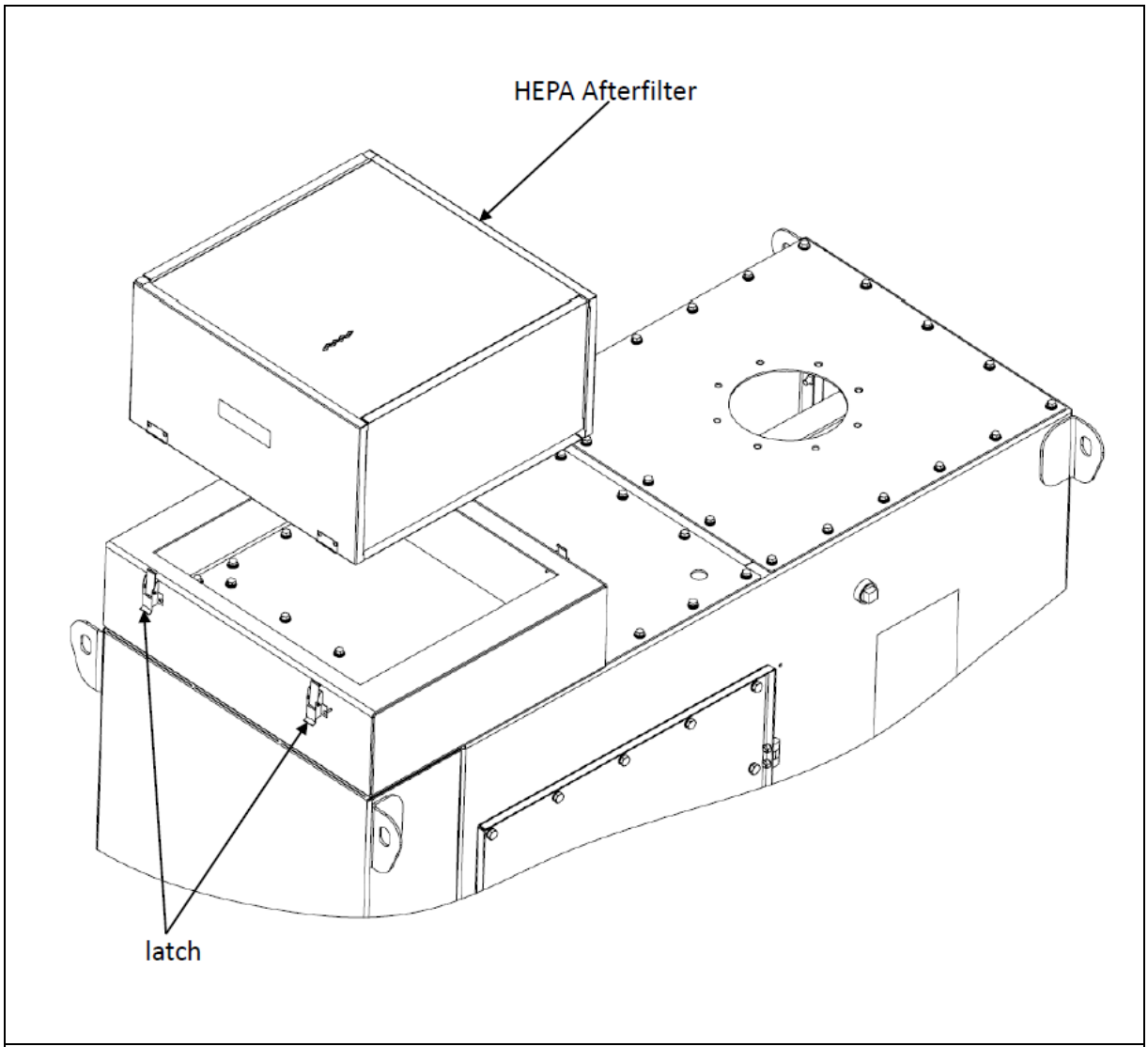


Figure 8: HEPA Afterfilter installation

Optional spark trap inlet installation

On the DFPRE 1/2/3 collector the spark trap inlet, if supplied, is a separate item and should be installed as follows:

1. Attach the support channel to the spark trap inlet using the bolts and washers supplied.
2. Apply sealant making a continuous 5 mm bead around the aperture on the top panel.
3. Remove the existing corresponding bolts and washers from the top panel to be used later for securing support channel.
4. Using suitable lifting equipment, position the spark trap inlet over the aperture, aligning the hole patterns.
5. Secure using the bolts and washers supplied, re-using the bolts removed previously to secure the support channel.

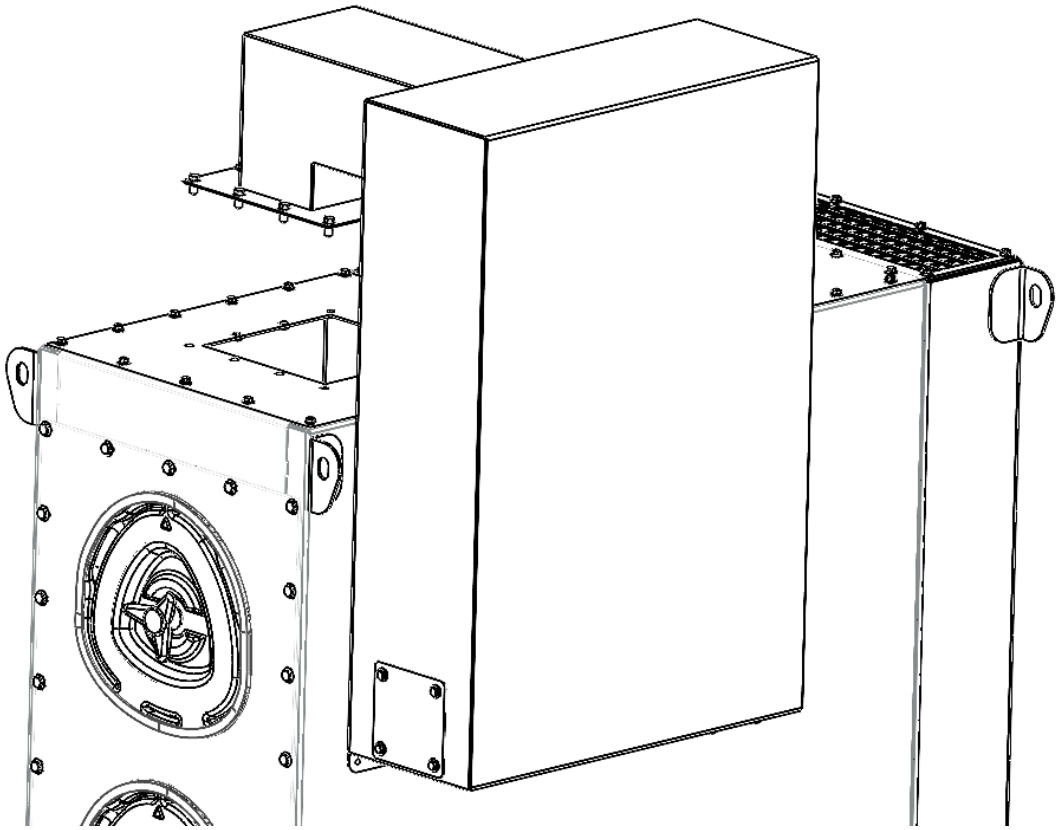


Figure 9: Spark trap inlet installation

Optional Bag-Out installation

Bag out collars are available for capturing nuisance, non-hazardous dust that may fall from dirty filters during the filter change.

This is not for contamination prevention or full containment purposes and is not a substitute for BIBO. Contact Donaldson Torit for selection assistance.

1. Turn all power to the collector OFF.

2. Begin filter replacement at one of the top filter access ports. Continue by replacing the remaining filters in the top row.Proceed to replace the filters in the next row. Replacing the filters row by row starting at the top will help limit dusting during replacement.

3. Remove access cover by turning knob counterclockwise.

Do not use the access cover features as climbing equipment.

4. Break the seal between the filter cartridge and the sealing surface.

5. Place the bag out bag around collar surrounding port hole. Starting from the bottom of the collar, roll the bag opening over the edge of the collar. With both hands, move around the collar until the bag is in position all the way around the collar. Secure bag on collar with buckle strap.

6. Using the bag as a glove, pull the filter into the bag.

7. Remove the buckle strap securing the bag. Place it aside for use on the next bag. Support filter and bag when removing to prevent dust spilling. Properly dispose of bag with the filter inside of it.

8. Repeat steps 5-7 for all remaining filters on suspension yoke.

9. Inspect and clean the sealing surface if necessary.

Clean dust from gasket dealing area to ensure a positive filter gasket seal.

10. Clean any dust from the yoke threads that may have accumulated during the filter removal.

11. Check for an accumulation of dust in the storage area and empty as necessary.

12. Follow filter installation instructions found in the Filter Replacement section of this manual.

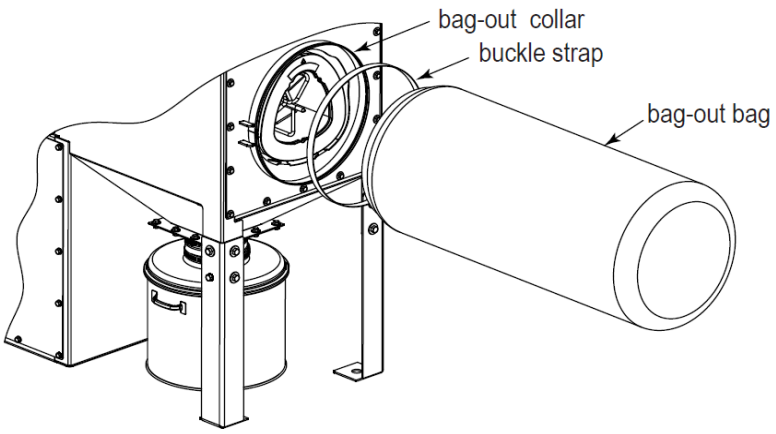


Figure 10: Bag-out installation

Optional Bag-In Bag-Out installation

The BAG-IN, BAG-OUT option allows for removal and installation of filters without exposure to atmosphere. Each filter is removed and installed in its own bag according to the following procedure.

This procedure must be followed in order to ensure safe changeover of filters.

Since this is not a simple procedure, and errors may have very serious health consequences.

Donaldson Company recommends purchase of a practice cabinet with BAG-IN, BAG-OUT so that maintenance personnel can practice this procedure.

Also, the Polyethylene bag tends to cling to itself. We suggest applying a light coat of corn starch or similar material to the inside of the bag so that the potential for this problem can be reduced.

CLEAN CHANGE BIBO FILTER SERVICE

Removal and installation

Use proper safety and protective equipment when removing contaminants and filters.

Dirty filters may be heavier than they appear.

Use care when removing filters to avoid personal injury and/or property damage.

Turn power off and lock out electrical power sources before performing service or maintenance work.

Turn compressed air supply off, bleed and lock out lines before performing service or maintenance work.

Do not operate with missing or damaged filters.

All filters must be removed and installed utilizing the following BIBO procedure to maintain containment.

The following pre-installed items are located in each filter access port to facilitate Bag-In/Bag-Out (BIBO) replacement of the filter:

- Hinged BIBO Cover - provides a safety barrier to contain BINO bag inside the access port.
- BIBO Bag - safely contains contaminants collected from the filter cartridge in each access port.
- Band Clamp - secures the BIBO bag and O-ring to the collar.
- O-ring gaskets (front and back) - creates a seal around the BIBO bag to secure the bag to the collector.
- Breather Filter Assembly - provides a filtered exhaust for removal of air as the BIBO bag is compressed and stored in the BIBO collar.

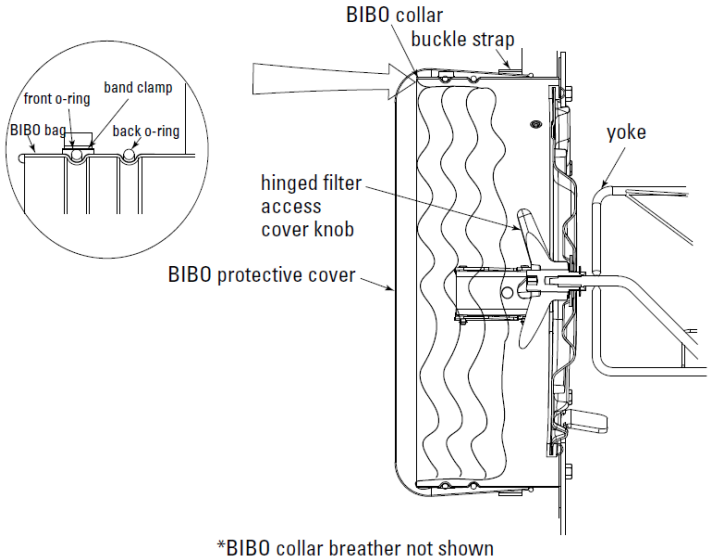


Figure 11-1: BIBO Pre-Installed Items(Side View)

Original equipment filter

To ensure performance levels, use only Donaldson replacement filters.

Initial filter installation of BIBO

If filters, Bag-In/Bag-Out (BIBO) bags and BIBO Collar Breathers are not preinstalled,please follow these steps per opening, before the collector is turned on.

1. Unbox necessary number of cartridge filters per model capacity.
2. Open hinged access cover and install cartridge filters gasket end first following procedures in de DFE Installation and Operation Manual.
3. Close and seal filter access cover on collector.
4. Locate BIBO Collar Filter Breather and attach to BIBO Collar.
5. On each collar, place the BIBO bag around the BIBO collar with the integrated O-ring gasket in the back groove (closest to collector) of the collar creating the first seal between the bag and collar. If the Clean Change bag is used, place the bag extension on the opposite side of the access cover hinge to allow for easy access to the filter opening.
6. Place separate (unattached) O-ring gasket in the first groove (fursthest from the collector) of the collar. This will give two levels of containment between collar and bag.
7. Take open steel band clamp, place around the collar an tighten around the integrated gasket (first gasket installed) creating the triple seal for filter changeout containment.
8. With BIBO bag now properly attached to BIBO collar, slowly roll empty bag into collar so that air will disperse through filter breather. Once the bag has dispersed all air it should fit inside collar up against closed filter access cover.
9. Insert BIBO protective cover onto BIBO collar to protect and hold BIBO bag in place. Place buckle strap around the protective cover and tighten to secure protective cover.
10. If hopper discharge is also installed and connected, turn the collector on.

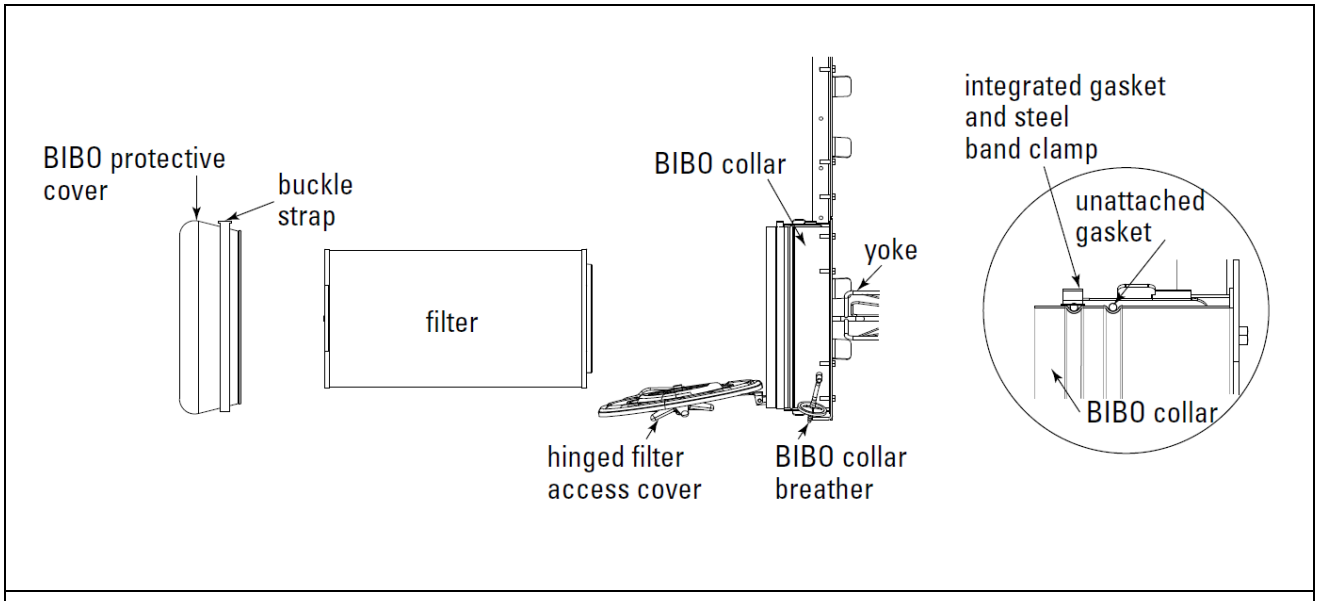


Figure 11-2: Initial Filter Installation of BIBO

Filter removal and installation

Use proper safety and protective equipment when removing contaminants and filters.

Dirty filters may be heavier than they appear.

Use care when removing filters to avoid personal injury and/or property damage.

Turn power off and lock out electrical power sources before performing service or maintenance work.

Turn compressed air supply off, bleed and lock out lines before performing service or maintenance work.

Do not operate with missing or damaged filters.

Ensure all pre-installed items are present, undamaged and in the correct place before proceeding with filter removal and replacement. See BIBO Pre-Installed Items. Failure to comply may result in containment failure and lead to property damage and/or personal injury.

Clean change filter removal

1. Starting at the top row of filters, position a 1 m x 1 m platform under the BIBO collar.
2. Remove the buckle strap and BIBO protective cover from the collar and set aside.
3. Unroll the BIBO bag from inside of the collar out onto the platform.
4. Toward the edge of the BIBO bag is the bag extensionto be used as a glove.
   Using the extension as a glove, reach into the bag and open the hinged filter access cover by loosening the knob.
5. To remove the filter, using both hands, position the end of the bag into the filter opening and pull the filter cartridge out to the end of the bag.
6. Loosely reposition the access cover to the end of the filter yoke.

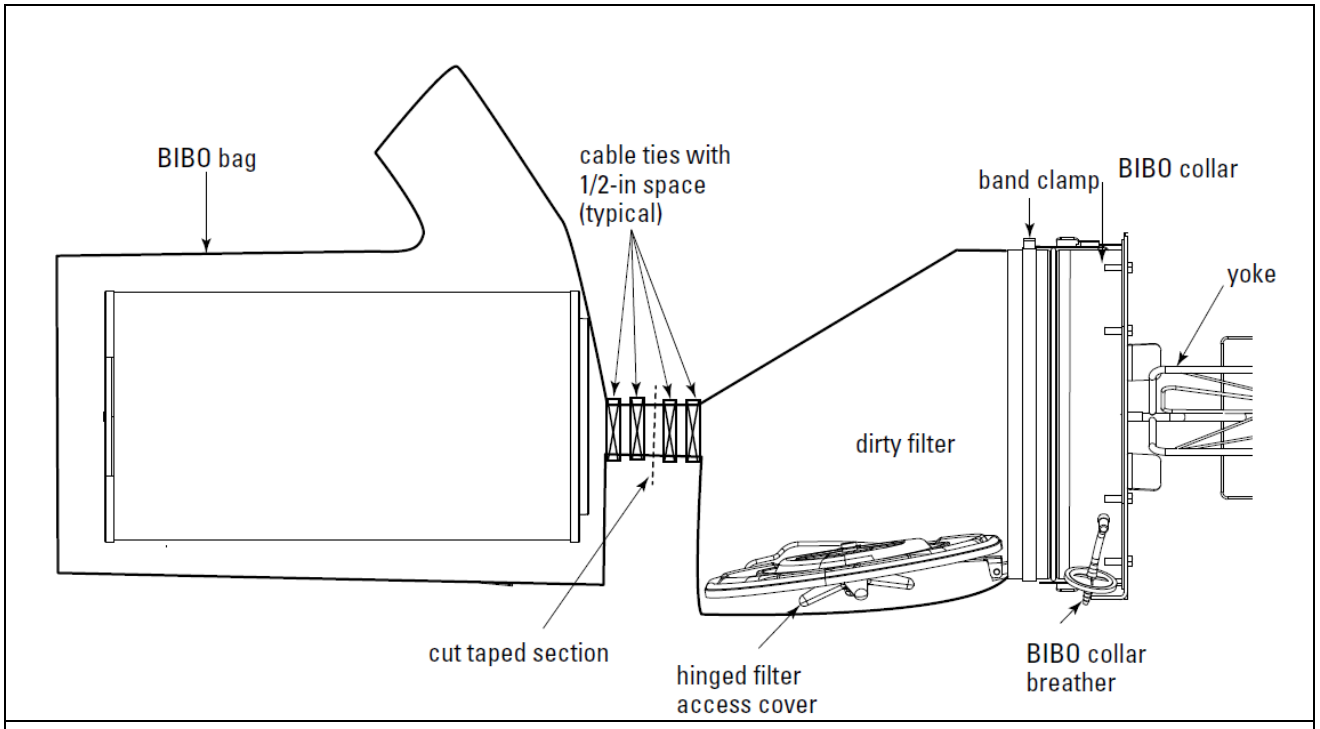


Figure 11-3a: Filter Removal

7. Locate the cleanest section of the bag closest to the collar, making sure there is enough bag to collapse into a tight bundle without stretching the bag too tight.
8. Wrap and hand tighten two cable ties around the collapsed bag section between the collar and filter cartridge, spacing the cable ties approximately 5 cm apart.
9. Compress as much air as possible from the BIBO bag and BIBO bag extension.
10. Securely tighten the two cable ties with the supplied cable tie tool at the maximum setting.
11. Cut the compressed BIBO bag between the two cable ties leaving one tie around each section.
12. Place tape over the cut end of the BIBO bag containing the filter and both cable ties.
13. Securely wrap tape around the cut end of the bag covering a minimum of 3-inches around the bag end.

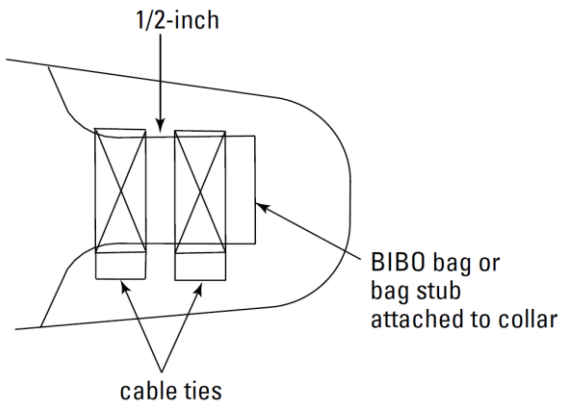


Figure 11-3b: Tape Wrap (Steps 10-13)

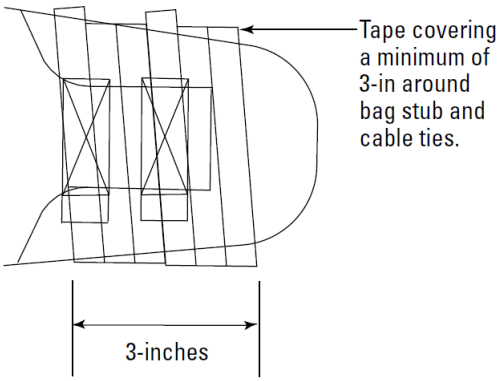


Figure 11-3c: Tape Wrap (Steps 14-17)

14. Properly dispose of the BIBO bag containing the filter.
15. If collector contains two filters per opening,gently push the stub into the collar.
16. Open a new bag and place the open end around the bag collar as close to the collector as possible. The bag stub is now inside the new bag.
17. Loosen the safety strap, slide the new bag under the strap, and the bag stub toward the end of the collar. Tighten the safety strap to hold the new bag only and carefully remove the bag stub from the collar.
18. Use the filter ejector rod to pull the second filter toward the bag collar until within reach.
19. Repeat steps 5-14.
20. Carefully remove the band clamp from the collar.
21. Move the front (integrated) O-ring gasket back 1/4-in in front of the back (unattached) O-ring gasket.

Do not remove bag from collar. Failure to comply will result in containment exposure.

22. Slowly and carefully slide the bag and both O-ring gaskets towards the front of the collar until the back o-ring gasket engages the front collar groove (furthest from collector) illustrated below.

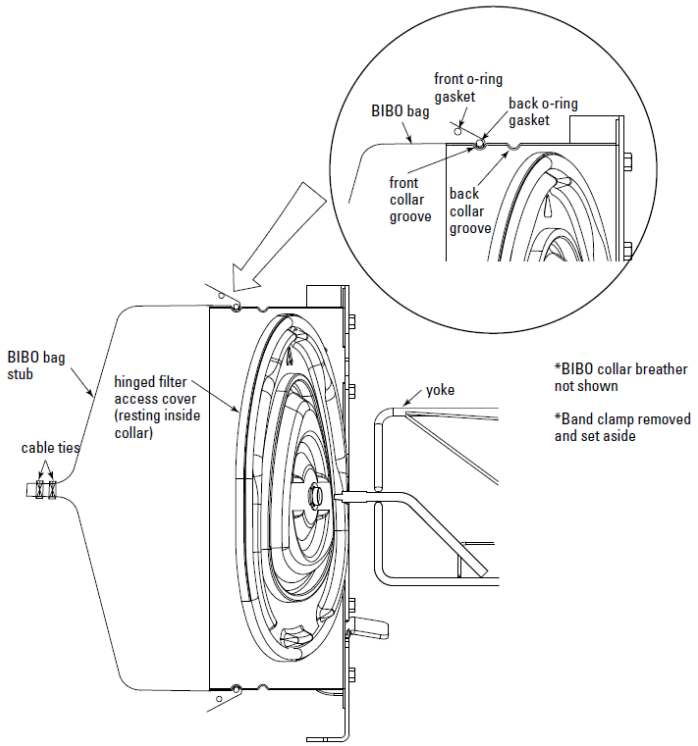


Figure 11-3d: Bag Stub Repositioning (Side View)

Clean change filter installation

1. Place a clean filter cartridge in a new BIBO bag with the filter gasket side facing the bag opening toward the collar on the collector.
2. Slide the new BIBO bag over the collar and past the bag stub and bag stub O-ring gasket. Position the bag extension on the opposite side of the access cover hinge
3. Install the new front (integrated) O-ring gasket in the back groove.
4. Install the back (unattached) O-ring gasket adjacent to the back O-ring gasket.
5. Reinstall the band clamp on the front O-ring gasket (closest to collector).
6. Invert the BIBO bag extension with both hands and pull off the bag stub section and O-ring gaskets into the new BIBO bag. O-ring gaskets will automatically pull off with it.
7. Move the back O-ring gasket into the front groove.
8. Remove the band clamp and reinstall on the back O-ring gasket.

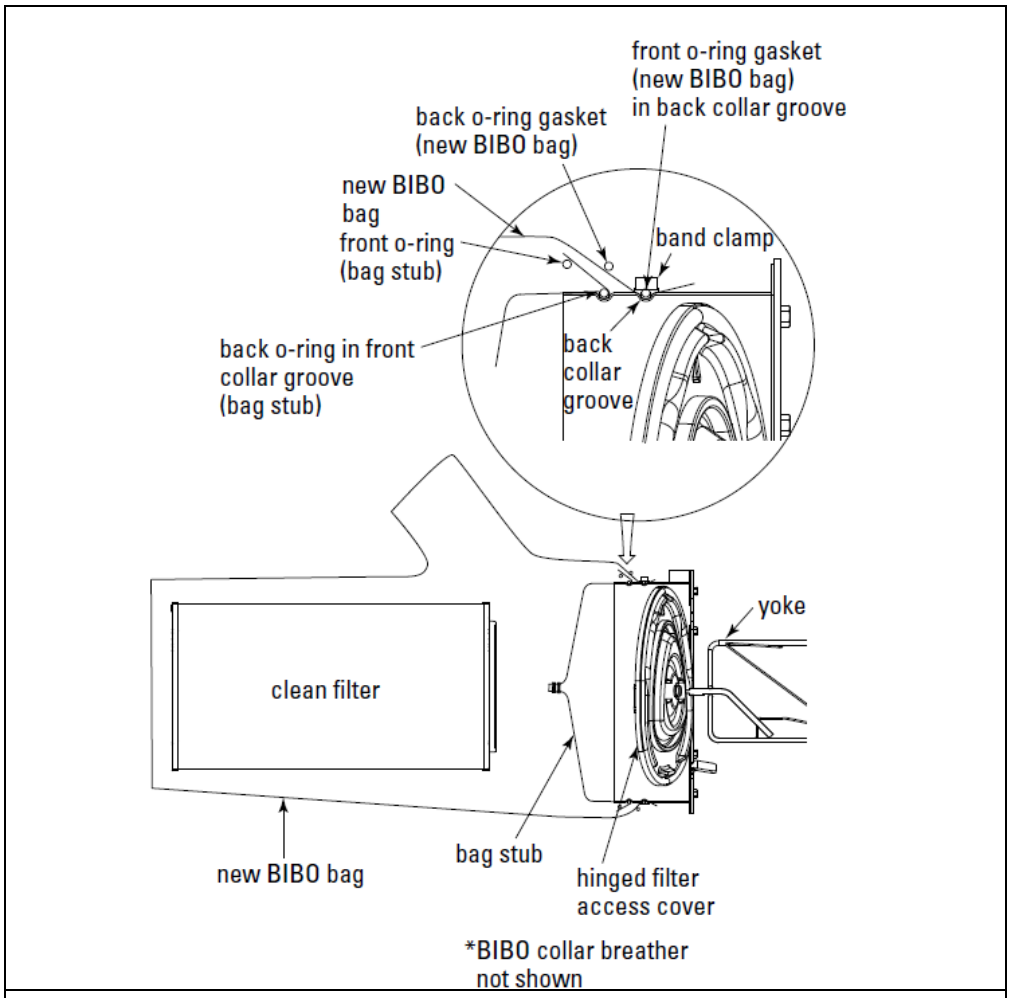


Figure 11-4a: Filter Installation

9. Install the filter with gasket end toward collector. Using the BIBO bag as a glove, support the filter with both hands while positioning the alignment features and slide the gasket end of the new filter onto the end of the suspension yoke.

Do not allow the bag to become pinched between the access cover and sealing surfaces. Failure to comply may result in containment failure.

The filter shape and yoke work together to ensure proper filter alignment during filter installation. To assist with alignment, an alignment mark (◢) at the top of the filter endcap (non-gasketed end) must match with the alignment mark (◤) at the top of the filter access opening.

If knob fails to thread onto yoke, on the opposite side of the hinge, apply slight pressure to the access cover using other hand. Continue to turn knob to start threading onto the yoke.

10. Close the filter access cover and tighten onto the yoke.
11. Slowly roll bag back into the collar to allow air to escape through the BIBO collar breather (see Bag Setup).
12. Install the BIBO protective cover and secure with buckle strap.
13. Turn electrical power and compressed air supply ON before starting collector.

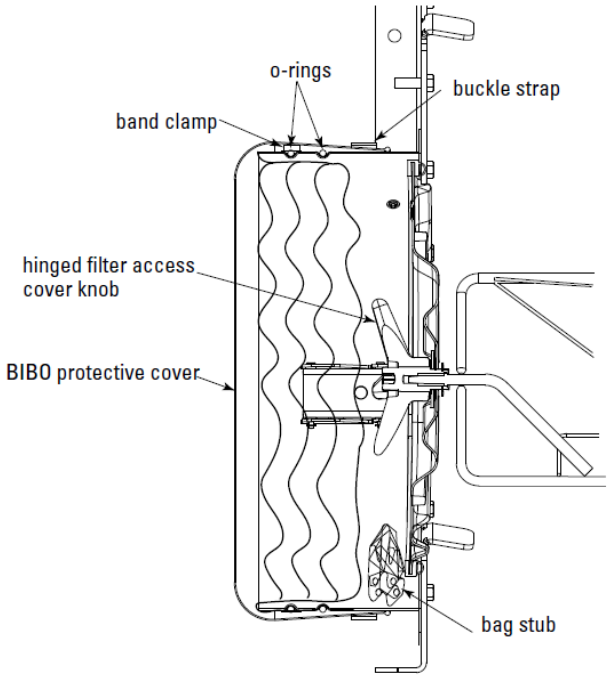


Figure 11-4b: Bag Setup (Side View)

BIBO collar breather installation

The BIBO collar breather provides a means for the air to escape during bag compression into the collar without breaking containment. Use the following procedure if replacement of the breather filter should become necessary.

1. Press on the metal trigger to release the breather filter and disconnect the assembly.
2. Remove and properly dispose of the breather filter.
3. Insert new breather filter in the female quick disconnect ensuring it is securely installed..

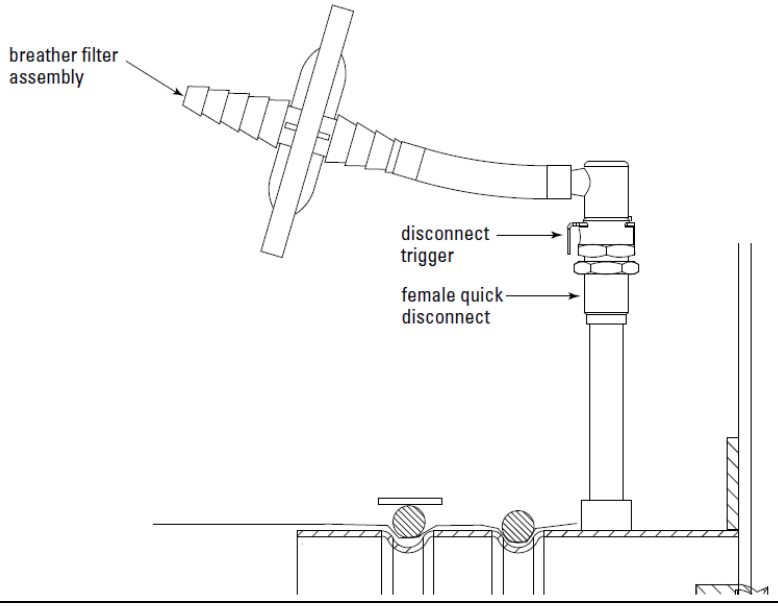


Figure 11-5: BIBO Collar Breather

Controller

Electrical installation, service, or maintenance work must be performed by a qualified electrician and comply with all applicable national and local codes.

Turn all power off and lock out all power before performing service or maintenance work. It is not unusual for the equipment to be operated from a remote location so equipment may start or stop unexpectedly.
The appropriate wiring schematic and electrical rating must be used. See collector's rating plate for required voltage. Do not install in classified hazardous atmospheres without an enclosure rated for the application.

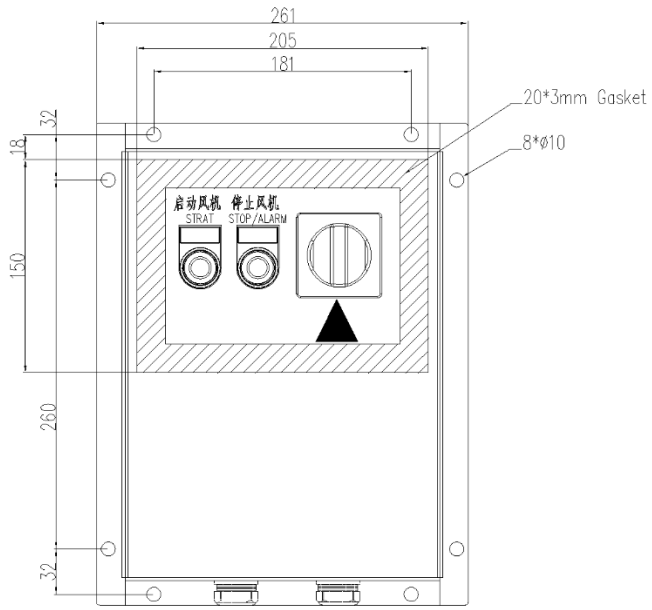


Figure 12-1a: Control Panel For DFPRE1

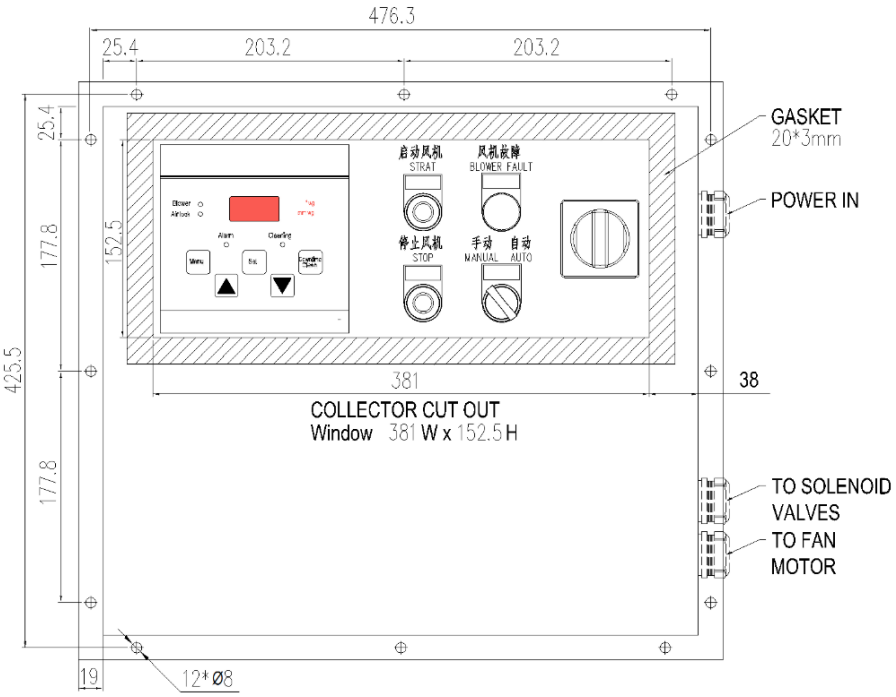


Figure 12-1b: Control Panel For DFPRE2/3

Delta P-C01 Control

For complete information, see the most current version of the Delta P-C01 Installation, Operation, and Maintenance manual.

All collectors include standars cleaning controls that are manually-or timer-controlled depending on the model and options selected.Models DFPRE2 and DFPRE3 standard controls include Delta P cleaning with motor starter. For DFPRE1 models, the standard equipment has no Delta P control panel, and the control box only has the fan start and stop function, which requires manual control of reverse blowing.

Overload protection

All feeder circuits should be adequately protected with suitably-rated fuses and contactors with integral overload protection.

Installation check list

☐ Where applicable, ensure that the collector is securely bolted to the floor.

☐ Ensure compressed air supply is free from leaks, installed correctly and according to the compressed air specifications, Table 2 and 3.

☐ Ensure electrical supply is installed correctly and complies to local legislation.

☐ Ensure all the electrical components are complying with the zone where they are installed.

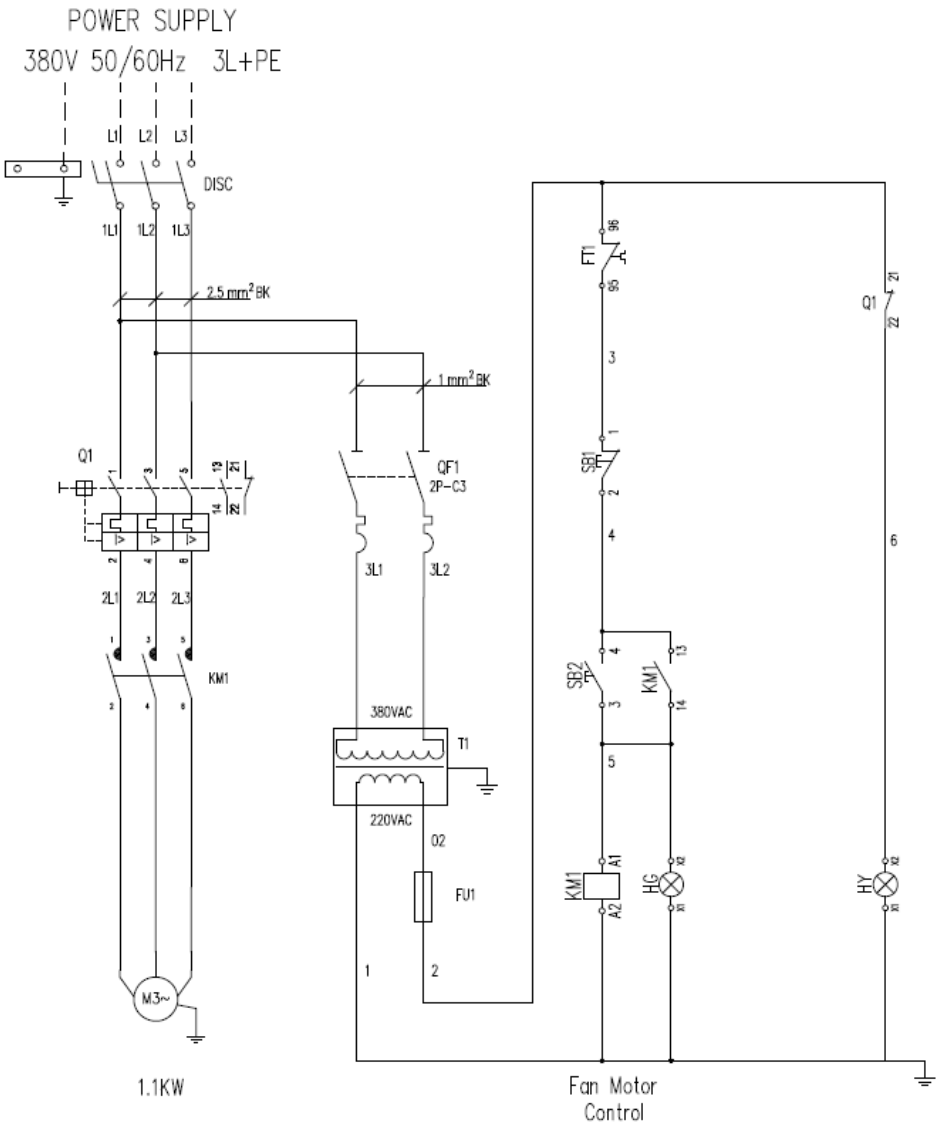


Figure 12-2a: Wiring Diagram For DFPRE1

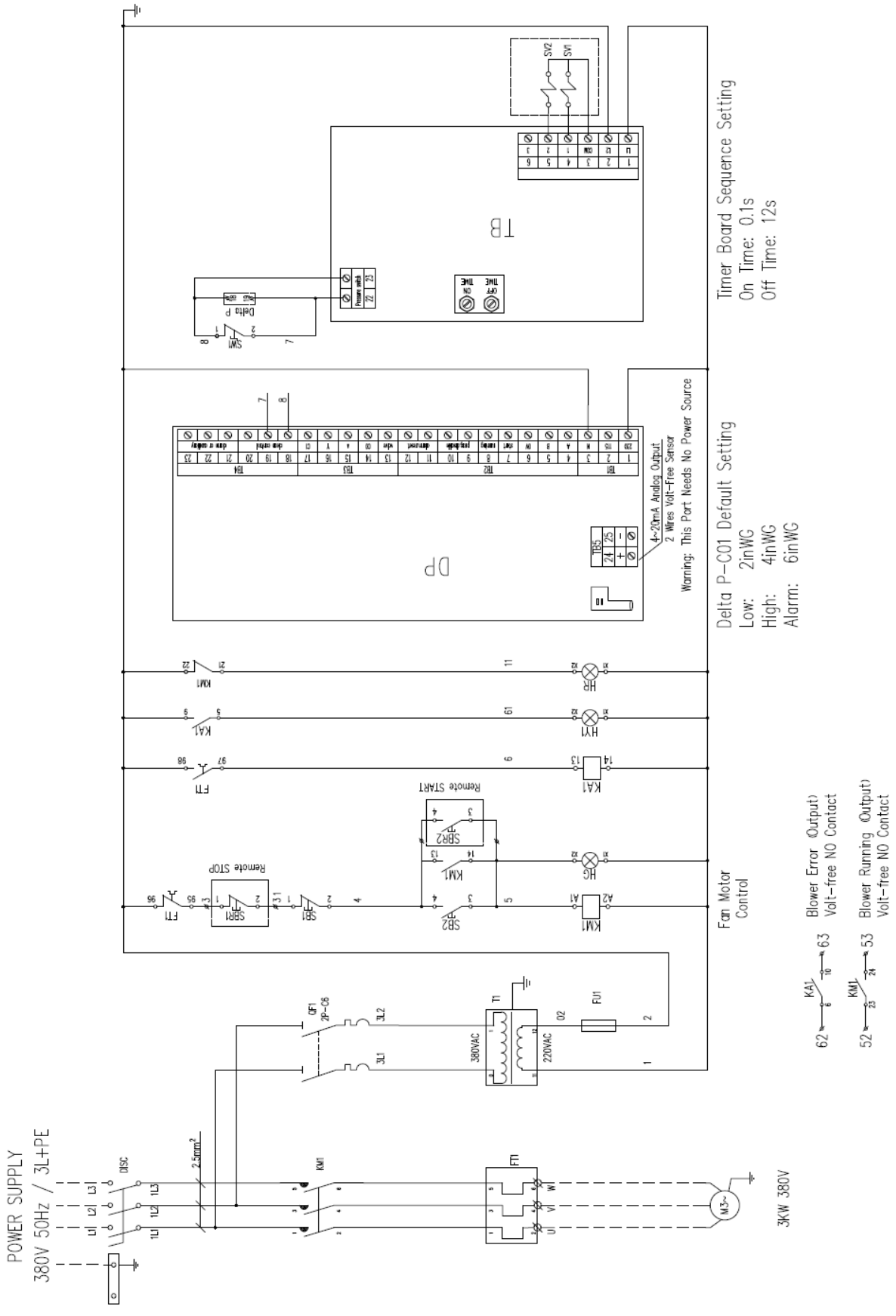


Figure 12-2b: Wiring Diagram For DFPRE2

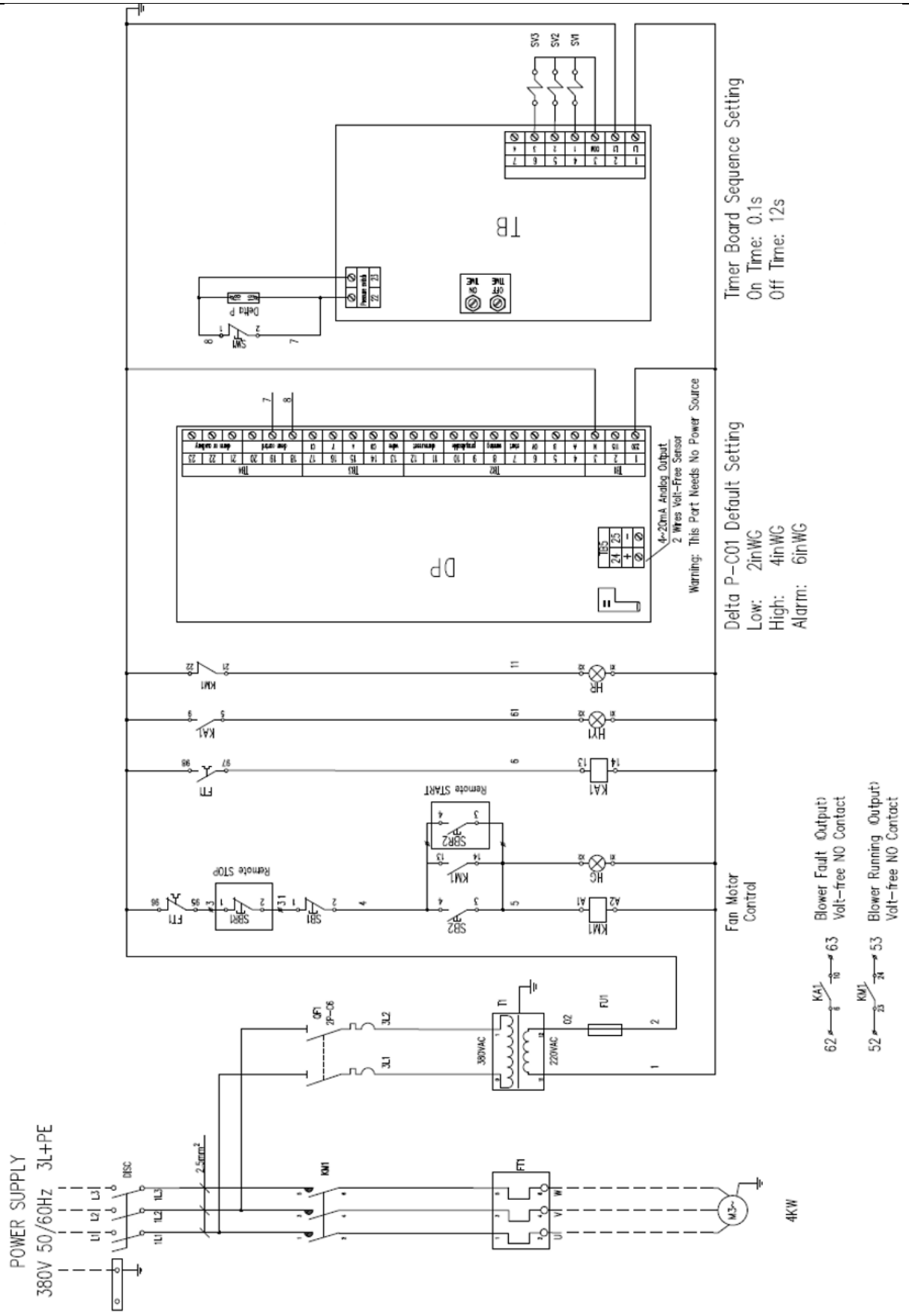


Figure 12-2c: Wiring Diagram For DFPRE3

Explosion Relief Panel

Personal injury, death, and/or property damage can result from material discharge during venting.

The material discharged during the venting of an explosion must be safely directed outdoors away from areas occupied by personnel to reduce risk of personal injury and/or property damage.

The risk of personal injury and/or property damage can be minimized or avoided by locating vented equipment outside buildings and away from normally occupied areas.

Explosion relief panels should be inspected regularly to confirm physical and operational condition. Replace any damaged parts immediately.

Standard explosion relief panels are intended for outdoor installations only.

Unless otherwise noted, the explosion venting calculations are subject to the relevant criteria and are for outdoor applications only, with no duct or obstructions on the explosion vent panel.

Contact Donaldson Torit for assistance in calculating specific venting requirements for equipment.

Flameless Explosion Relief Device

A flameless venting device may be placed on top of the vent panel to extinguish explosion flames but allow pressure to pass through.

Personal injury, death, and/or property damage can result from material discharge during venting.

The material discharged during the venting of an explosion must be safely directed outdoors away from areas occupied by personnel to reduce risk of personal injury and/or property damage.

The risk of personal injury and/or property damage can be minimized or avoided by locating vented equipment outside buildings and away from normally occupied areas.

Flameless venting devices should be inspected regularly to confirm physical and operational condition. Replace any damaged parts immediately.

Unless otherwise noted, the explosion venting calculations are subject to the relevant criteria.

Contact Donaldson Torit for assistance in calculating specific venting requirements for equipment.

Refer to vendor supplied installation manual for additional information.

COMMISSIONING

It is a requirement of the Supply to provide adequate isolation and emergency stop facilities. Due to the varied nature of site installations, this cannot be provided by Donaldson but instead is the responsibility of the customer.

Before putting the dust collector into service, the following items should be checked. Similar checks, as appropriate, should be made after any major overhaul.

Commissioning check list

- ☐ Where applicable, ensure that the collector is securely bolted to the floor.
- ☐ Ensure dust disposal system is correctly installed.
- ☐ Ensure all ducting is complete, all detachable panels are in position and fixed guards are secure.
- ☐ When new filter elements are installed, it is necessary to reduce the airflow through the filter media by closing the damper valve. This can be done by closing the damper valve and secure position by tightening wingnut.

This way the dust will not penetrate the media and can be cleaned off as described above. After the elements are conditioned the damper valve can be placed back to its original position.

- ☐ Ensure collectors are suitably earthed.
- ☐ Ensure electrical power is available.
- ☐ Check fan motor for correct rotation and that the full load current is not exceeded. (Refer to the fan rotation label located on the fan mounting plate inside the clean air chamber).

Keep clear of inlet opening/rotating impeller whilst performing rotation check. To reverse rotation (three phase power supply): Turn electrical power OFF at source and switch any two-phase wires on either the motor junction box or the controller input terminals.

- ☐ Ensure access panel seals are intact, then close and secure the panels.
- ☐ Ensure the airflow damper is set to the closed position (Refer to figure 6).
- ☐ Ensure the compressed air manifold has sufficient protection for overpressure.
- ☐ Start the compressor and check that the air supply is maintained at the recommended pressure.
- ☐ Switch on the controller.

When Delta P cleaning is selected, then the cleaning system will not operate until the differential pressure rises above a set value of 3inW.G.(750Pa).

If any of the above check boxes are not ticked, then the reasons why should be investigated. (Refer to fault location table in 'Maintenance' section).

- ☐ Ensure unit properly connected to earth using the brass screw provided, to prevent any static build-up. (Located next to symbol shown).

Start-up sequence

1. Turn on compressed air supply.
2. Check that the compressed air supply is maintained at the recommended pressure.
3. Adjust the slide gate as described in commissioning.
4. Switch on controller.
5. Adjust airflow using the damper valve (figure 6).

Shut-down sequence

At the end of any period of operation it is most important that all residual deposits are cleared from the filter cartridges, casing, and discharge hopper. To achieve this, equipment should be shut down in the following order:

1. Stop fan only, leaving controller and compressed air supply switched on to allow filter to be cleaned 'off-line'.

To enable off-line cleaning, see controller manual.

2. After 10-15 minutes, switch off controller and the compressed air.

Where the dust being handled has self-heating properties, it is important to remove any deposits in the dust container to reduce the risk of an explosion.

Adherence to the above procedure will ensure that the dust collector installation is maintained at optimum efficiency.

OPERATION

On installations where the inlet duct is relatively short, this procedure may result in a dust emission occurring at the inlet and therefore may not be an appropriate procedure if the dust being handled is dangerous. Therefore, a Risk Assessment must be carried out to ensure the final procedure is safe.

Electrical work during installation, service or maintenance must be performed by a qualified electrician and comply with all applicable national and local codes.

Turn all power off and lock out all power before performing service or maintenance work.

Turn compressed air supply off, bleed and lock out lines before performing service or maintenance work.

Check that the collector is clear and free of all debris before starting.

Do not install in classified hazardous atmospheres without an enclosure rated for the application.

Principle of operation

During normal operation, dust-laden air enters the collector through the top dirty-air inlet. Airlflow is directed downward through the collector and heavier particulate falls directly into the hopper. The cartridges remove fine particulate and clean, filtered air passes through the cartridge to the clean-air plenum and discharges through the clean-air outlet.

Filter cleaning is completed using pulse-jet technology. An air diaphragm valve aligned to each filter provides the pulse cleaning.

Either a manual push-button valve or electronic solenoid valve actuates the pulse cleaning. The cleaning sequence starts at the top filter and continues down through each filter. Remove, inspect, or change the filter cartridges from outside the collector by removing the filter access cover and sliding the filter out.

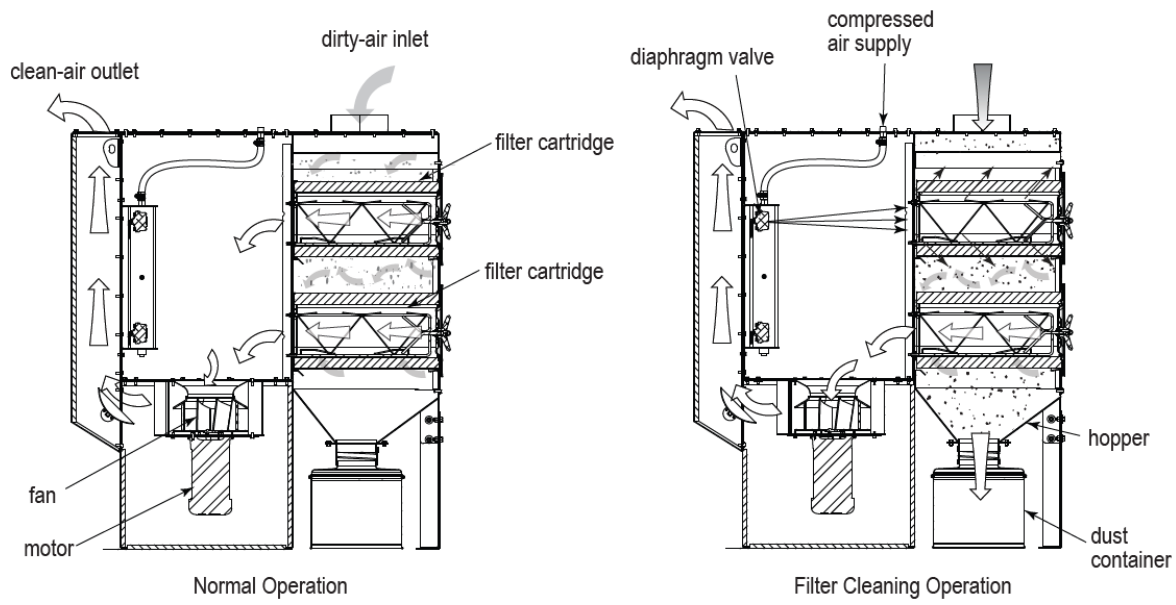


Figure13: Collector Operation

Dust disposal

For safe handling of the dust container an assessment must be made to satisfy the requirements of the Directive.

Dust containers may require regular emptying.

Dust containers should be securely replaced and resealed prior to collector restart. This is a good time to check the dust container for damage, which may lead to a dust leak or flame emission in the rare instance of an internal explosion.

Use appropriate personal protection equipment (PPE) during service process, e.g., dust mask, safety hat, gloves, etc.

Follow these steps to empty the dust container:

1. Shut the collector OFF prior to emptying the dust container (bin, drawer, pail, or drum)
2. Loosen and remove collar clamp.
3. Remove dust container. For a 10-gallon pail, proceed to Step 4.
4. Transfer dust from the dust container to a suitable disposal site and dispose of dust in accordance with local requirements for the materials being collected.
5. Empty when dust container is 2/3 full. Check integrity of gasket under container cover. Replace gasket if worn or damaged.
6. Replace or reinstall dust container, cover and reclamp to the collector.

The collector should not be operated without the dust container in place and should not be serviced while collector is running. Do not service the dust container without turning the collector OFF.

7. The collector can now be returned to service.

MAINTENANCE

A platform should be used when carrying out maintenance where the position of the technician's feet is greater or equal to 2 meters above ground level.

Before any work is carried out, ensure the equipment is adequately isolated and safe.

Ensure the pneumatic system is fully isolated and depressurized before any work is carried out.

For ancillary equipment not manufactured by Donaldson, refer to manufacturer's instructions.

If it is unavoidable to work on the equipment while a potentially explosive atmosphere is present, care should be taken to avoid introducing ignition sources not present during expected operation. Non-sparking tools should be used.

Use correct tools to avoid potential ignition sources. Tools containing acetylene, carbon disulfide, hydrogen sulfide and ethylene oxide cannot be used during maintenance.

Access to the Dirty Air Plenum of the equipment may create risks and hazards that under normal circumstances are not present and as such this work must be carried out by competent personnel. These risks include inhalation of dust and potential explosion hazards. Appropriate personal protection equipment (PPE) should be used, e.g. dust mask, safety hat, gloves etc.

In order to maintain the original collector specification and to ensure the same level of safety, only genuine spare parts should be fitted.

Every care has been taken to avoid the risk of ignition of a flammable atmosphere. The measures taken to avoid ignition should not be altered since this may result in unsafe operation. Particular care should be taken during maintenance and component replacement to ensure the same level of safety is maintained. When replacing fan impellers, avoid any rubbing of components (to prevent mechanical sparks).

Care should be taken during cleaning and maintenance to avoid creating static discharges that have the potential to ignite a flammable atmosphere.

When carrying out maintenance always follow typical best practice to local regulations.

Use appropriate personal protection equipment (PPE) during service process, e.g., dust mask, safety hat, gloves, etc.

Use torque limiter when fitting fasteners to reduce the risk of seizure.

Routine inspection

To maintain the optimum performance of the dust collector, a routine inspection should be made to minimize down-time in the event of equipment malfunction, particularly on continuous performance applications and to ensure the equipment is maintained to its original supply condition.

Any abnormal change in differential pressure across the filter cartridges indicates a change in operating conditions and a fault to be rectified. For example, a prolonged stoppage of compressed air will cause an excessive build-up of dust on the cartridges, resulting in a greatly increased pressure drop.

After the fault has been rectified, resumption of compressed air cleaning will usually return the filter to normal efficiency. However, it is advisable to operate the in still-air conditions for a short period to dislodge any accumulated dust before putting the collector into operation.

When the DFPRE is fitted with a Powerbox, filter resistance can be checked by viewing the display on the front panel of the controller. This will give a continuous indication of the state of the filter. Once running, the operating resistance will be relatively stable, the actual value depending on the air volume and the characteristics of the dust being handled.

If the differential pressure exceeds 120 mm WG, check the following:

- *The compressed air supply is installed correctly, is free of water or oil and is maintained at the recommended pressure (refer to Table 3).*
- *The differential pressure connections are not blocked.*
- *The solenoid and diaphragm valves are functioning correctly.*
- *The controller is operational.*
- *The dust container is properly sealed.*

If the differential pressure still exceeds 120 mm WG after checking the above, then reduce the pulse cleaning interval time to see if this will improve the cleaning of the filter cartridges and, in turn, lower the differential pressure (details of pulse interval settings are provided in the controller manual).

If the differential pressure exceeds 150 mm WG, then the cartridges have reached the end of their lifetime and need replacing.

It is recommended to periodically inspect the general casing integrity.

Do not operate above recommended compressed air pressure. Excessive pressure will reduce the working life of components.

Servicing schedule

A record of all pressure checks should be kept in a log book to aid the speedy diagnosis of faulty operation.

Daily

Check level of contents in dust container and cyclopeel if applicable, and empty if ¾ full.

Weekly

1. Open valve at the bottom of moisture separator bowl and allow collected water to drain off, then close valve.

2. If fitted with a Powerbox, check the pressure drop across the filter by viewing the display on the front panel of the controller. If fitted with a UCS, connect a manometer to the tapping point (refer to Routine inspection) and measure the pressure drop across the filter.

3. If excessive, refer to Table 1.

Every 2 weeks

1. Check for visible dust emissions in cleaned air plenum. If evident, refer to Table 1.

2. Check controller settings (refer to controller manual).

3. For units fitted with a sparktrap, open sparktrap inspection cover and check for dust deposit. Clean dust to avoid fire ignition. Close inspection cover.

Monthly

1. Check dust seals on all access panels for damage or ageing and ensure they are properly seated to prevent entry of water. This is particularly important where the collector is located outside or in a wet atmosphere.

Faulty seals must be replaced.

2. Check operation of solenoid and diaphragm valves. If it is necessary to replace a diaphragm, refer to Valve disassembly/reassembly.

It may be necessary to check operation of the valves while the system is pressurized. Care should be taken to avoid injury.

Every 2 months

1. Check connected ducting. Repair any leaks as necessary.

Every 6 months

1. Check general casing integrity and support structure. Repair or replace as necessary.

2. The fan impellor has been dynamically balanced and the fan assembly vibration level should meet the corresponding standard requirements. An assessment of vibration should be made every six months, or after a significant emission, or after any misuse and a record kept of measured values. Excessive vibration levels should be investigated and corrected immediately.

Vibration monitoring is mandatory on category 2G, 3G and 2D fan assemblies.

Electrical continuity and earthing must be ensured on non-welded metal parts of construction which contain non-conductive elements.

Annually

1. Remove and replace compressed air filter regulator element.

2. Remove drain plug and air inlet connections from compressed air manifold. Clean out any accumulated sludge and inspect to any current local legislation.

It may be necessary to remove a diaphragm valve for internal inspection purposes.

3. If applicable, check all flameproof enclosures, motors and cable glands for corrosion and tightness.

In particularly aggressive environments, this period should be more frequent.

4. If applicable, check collector earthing continuity.

5. If applicable, check measures taken to avoid ignition sources are still in place.

6. Open the clean air chamber access cover and, by looking through fan inlet eye, inspect fan thoroughly. If necessary, remove all residual dust accumulation. (Although the fan is located on the clean side of the collector, it is possible for low quantities of dust to migrate through the filter media).

The fan should be inspected immediately after any period of significant dust emission, i.e. due to damaged filter media or seal etc.

The fan should be inspected immediately if there is any unexpected noise, temperature or vibration.

The fan should be inspected every twelve months or immediately following any misuse.

If inspection reveals any damage, then the fan must not be put back into service until properly repaired or replaced.

Every 2 years

Replace filter cartridges (unless specified otherwise in Scope of Delivery). Refer to Filter cartridge replacement.

Replace Dirty air plenum (DAP) access cover gaskets by applying two rows of sealant nearby the holes.
Replace Clean Air Plenum (CAP) access cover door gasket by applying two rows of sealant nearby the holes.

Valve disassembly / reassembly

Do not overtighten pipe connections.

1. Switch off the compressed air.

Make sure manifolds are depressurized before any work is carried out.

2. Open the clean air access door.

3. Using screwdriver, unscrew 4 screws to remove bonnet from valve.

4. Diaphragm assembly is now accessible for cleaning or replacement.

When replacing diaphragm assembly ensure the marking "THIS SIDE OUT" faces valve bonnet and bleed hole is in alignment with cavity in valve body and bonnet. The external contours of diaphragm, body and bonnet must all be in alignment.

5. Replace bonnet and tighten screws according to torque chart (16 Nm ± 2Nm).

Torque 7 Nm (±1). Torque should be applied crosswise.

6. After maintenance, operate valve a few times to ensure proper operation.

Filter cartridge replacement

Most dusts present safety and health hazards that require precautions. Wear eye, respiratory, head and other protection equipment suitable for the type of dust.

Use proper safety and protective equipment when removing contaminants and filters.

Dirty filters may be heavier than they appear. Use appropriate equipment to access filters and appropriate lifting methods to avoid personal injury and/ or property damage.

Turn all power OFF and lock out all power before performing service or maintenance work.

Turn compressed air supply OFF, bleed and lock out lines before performing service or maintenance work. Do not operate with missing or damaged filters.

1. Turn all power to the collector OFF.
2. Begin filter replacement with the top row of filters. Select a filter access port and remove access cover by turning knob counterclockwise.
3. Break the seal between the filter cartridge and the sealing surface.
4. Slide each filter out the access port along the suspension yoke and dispose of in accordance with local requirements for the materials being collected.
5. Proceed to the next row of filters and repeat for all remaining filters.
6. Inspect and clean the sealing surface if necessary.

Clean dust from gasket sealing area to ensure a positive filter gasket seal.

7. Clean any dust from the yoke threads that may have accumulated during the filter removal.
8. Check for any accumulation of dust in the storage area and remove as necessary.
9. Slide the gasket end of each new filter onto the end of the suspension yoke.

The filter shape and yoke work together to ensure proper filter alignment during filter installation. To assist with alignment, an alignment mark (r) at the top of the filter endcap (non-gasketed end) must match with the alignment mark (s) at the top of the filter access opening.

10. Proceed to the next row of filters and repeat for all remaining filters.
11. Inspect cover gaskets. Clean and/or replace as necessary.
12. After new filters have been installed, place the access cover on the yoke and hold it in position while tightening the knob securely by hand (3 turns) before using tool assist option.

The access cover must be properly aligned to ensure a dust tight seal to the housing.

*Do not exceed 8 N*m torque when securing the access cover as over tightening may cause damage to the filter and/or equipment.*

When filter installation is complete, check to ensure that each access cover is seated and sealed against the filter housing to ensure a dust tight housing seal.

13. Set the exhaust damper valve at 35°.
14. Once the Delta P controller reads 2.0 the filter is sufficiently primed and the damper valve can be moved into the fully open position.
15. Turn the collector ON and measure airflow. Adjust the exhaust damper valve (higher for less airflow, lower for more airflow) until the designed airflow is reached.
16. The collector can now be returned to service.

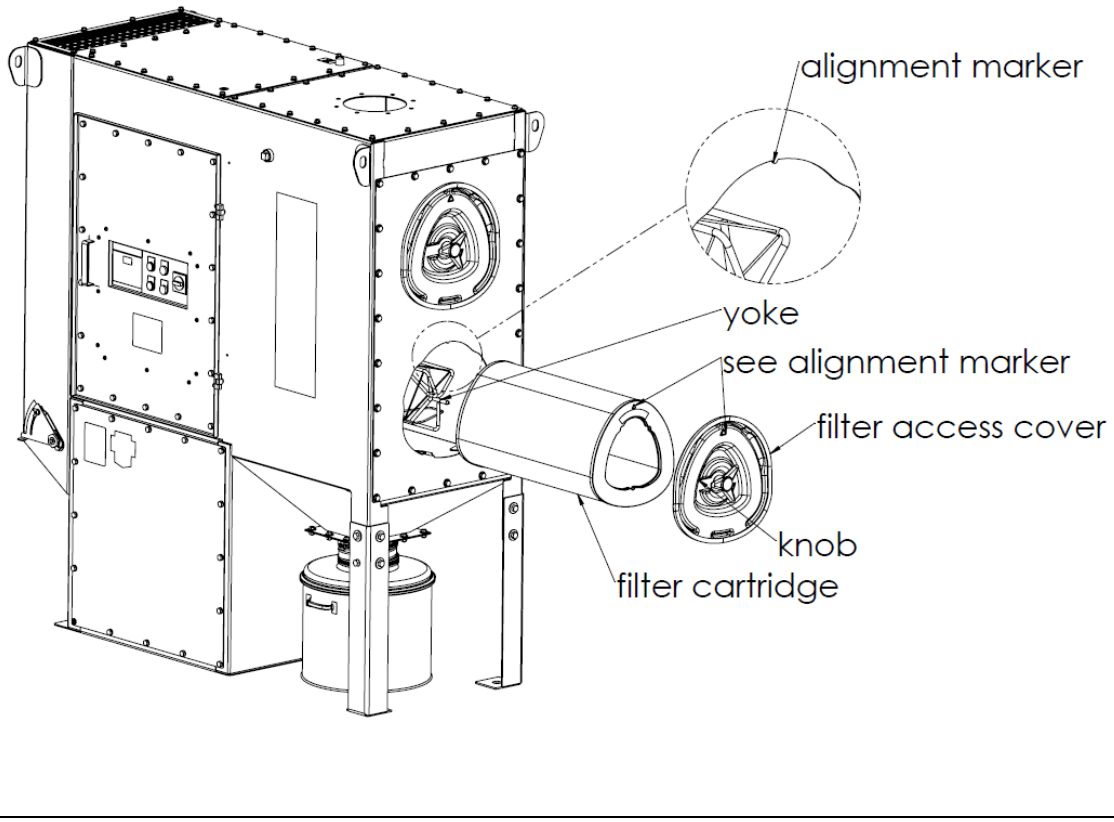


Figure 14: Filter Removal and Installation

Fan assembly removal

Isolate electrical power supply.

1. Remove fan chamber access panel.
2. Open control equipment access panel.
3. Disconnect electrical cables from fan motor terminal box.
4. Slacken motor cable gland located on the fan mounting plate and carefully pull the motor cable outwards and position so as not to hinder access.
5. Remove the bolts locating the fan motor pedestal to the fan support channels.
6. Remove the bolts locating the fan mounting plate to the top flanges of the fan chamber.
7. Remove the support beam by removing bolts to the fan mounting plate and fan chamber.
8. Carefully pull fan mounting plate/fan assembly forward, maintaining support until lifting lugs are accessible.
9. Fan mounting plate/fan assembly can now be lifted clear of collector using suitable lifting equipment.

Refer to general lifting guidance chapter.

10. If required, fan mounting plate may be removed from fan assembly by removing bolts around the inlet opening.

Dismantle/decommission dust collector

Make sure to empty dust container and cover all the open areas to prevent possible dust spillage/exposure during transportation.

Use appropriate personal protection equipment (PPE) during service process, e.g., dust mask, safety hat, gloves, etc.

Refer to general lifting guidance chapter.

Check structural integrity of unit before dismantling any component.

If it is intended, for any reason, to put the machine out of service and demolish it, some basic rules must be observed to safeguard health and the environment in which we live:

- Sheaths, flexible ducts, and components made of plastic or non-metal must be removed and disposed of separately.
- Electrical components such as switches, power supplies, boards, etc., must be removed to be reused if they are still in good condition, or if possible, reconditioned and recycled.
- However, the structure and all metal parts of the machine must be removed and grouped by type of material. The various parts obtained in this way can then be scrapped and melted down to allow the material that makes up the original machinery to be recycled.

The responsibility to reuse some machine parts, such as engines, lies solely with the User.

The manufacturer will not be held responsible for damage caused by the machine when it is used without certain components or by using it for purposes not expressly specified in this manual.

For the demolition of any machines connected to this machine, it is necessary to follow the instructions contained in the relevant user manuals.

It is necesary to respect regulations in force in the country of the user regarding disposal of the materials provided with the machine.

TABLE 1 – FAULT LOCATION

Symptom	Possible cause	Action
Part loss of suction (excessive pressure differential).	Compressed air malfunction.	If compressor stopped, rectify compressor fault; check interlocks; check motor and supply; check drive.
		If compressor OK, check pulses at manifold pressure gauge.
		Clean filters, dismantle and clean moisture separator.
		Check for excessive water or oil in compressed air supply, and possible accumulation in manifold.
	No pulses of air to valves.	Refer to 'Fault location' table in controller manual supplied with dust collector.
	Unit blocked.	Check dust container is not overfull. Check starter overloads, fuses and interlocks.
		Run unit clear*, then remove each cartridge in turn and renew any that are damaged.
	Motor speed low.	Check line voltage, phases, fan motor connections.
	Incorrect fan motor rotation.	Check electrical connections and transpose if necessary.
	Airflow damper incorrectly adjusted	Check airflow in duct. Adjust damper control until correct airflow is achieved.
	Access panels open or incorrectly secured	Check all access panels are in place and correctly secured. Ensure dust container is properly sealed.
	Fan exhaust area restricted	Check fan exhaust area for obstructions.
Total loss of suction.	Fan motor stopped.	Check motor supply overloads, fuses and interlocks (if fitted).
		Check motor connections and windings.
	Unit blocked.	Check that dust container is not overfull. Check starter overloads, fuses and interlocks.
		Run unit clear*, then remove each cartridge in turn and renew any that are damaged.
	Ducting blocked.	Check throughout and clear.
Visible effluent in clean air outlet.	Filter cartridges not properly sealed.	Check cartridge access covers are seated and seal properly.
	Damaged filter cartridge.	Damaged cartridges can be identified by the dust present in clean air chamber. Withdraw cartridge and renew.

*To run unit clear, switch off main fan only and allow the controller to perform several complete cleaning cycles before switching off compressor etc.

TABLE 1 – FAULT LOCATION (CONTINUED)

Symptom	Possible cause	Action
Total loss of suction.	Fan motor stopped.	Check motor supply overloads, fuses and interlocks (if fitted).
		Check motor connections and windings.
	Unit blocked.	Check that dust container is not overfull. Check starter overloads, fuses and interlocks.
		Run unit clear*, then remove each cartridge in turn and renew any that are damaged.
	Ducting blocked.	Check throughout and clear.
Visible effluent in clean air outlet.	Filter cartridges not properly sealed.	Check cartridge access covers are seated and seal properly.
	Damaged filter cartridge.	Damaged cartridges can be identified by the dust present in clean air chamber. Withdraw cartridge and renew.
Dust container pressure balance (if fitted) not working.	Leaking balance pipe connection.	Check connections and rectify.
Excessive noise from diaphragm valve.	Diaphragm valve failure.	Check for debris, obstruction, valve wear or diaphragm failure. Replace damaged valve or parts.

*To run unit clear, switch off main fan only and allow the controller to perform several complete cleaning cycles before switching off compressor etc.

SPECIFICATION

For other specifications on this product refer to the datasheet.

For controller specifications refer to controller manual.

TABLE 2 – COMPRESSED AIR MANIFOLD DESIGN DETAILS

Design pressure:	8 bar	
Maximum operating pressure, PS:	7 bar (101.5 psig)	
Test pressure:	11.5 bar	
Design temperature:	-20° to +70°C	
Manifold volume:	DFPRE 1 / 2/3:	5/10/17.7 liters
Product of pressure and capacity:	DFPRE 1 / 2/3:	44.59 bar liters

1 bar = 10^5 Pa

TABLE 3 – COMPRESSED AIR REQUIREMENTS

Collector type	Working compressed air pressure [a]	Atmospheric air volume- F.A.D. [b]	Pulse duration
DFPRE 1 / 2/3	6-7 bar	at 12 sec. intervals [b] 13.5 m^3/h	100 ms

[a] Normal operating pressure. [b] Recommended initial settings; these may be varied with experience.
[c] Sizes suitable for runs of pipe up to 30 m (100ft) in length; for longer runs consult with Donaldson.

1 bar = 10^5 Pa

SPARE PARTS LIST

Item	Description	Part number
1	Filter Assembly-ULTRA WEB STD	P034301
2	Filter Assembly-ULTRA WEB CD FR	P034584
3	Filter Assembly-ULTRA WEB FR	P034303
4	Filter Assembly-ULTRA WEB SB CD	P281902
5	Diaphragm valve 1 in	2SG-75492-03
6	Solenoid Valve Enclosure (DFPRE2)	8PP-48948-10
7	Solenoid Valve Enclosure (DFPRE3)	8PP-48948-11
8	Access cover	3EA-AK00267-32
9	Access door gasket	8PP-19261-00
10	Delta P-C01 115V/230V	8PP-AK01004-00

Note: *When ordering parts, give model number and serial number of dust collector , description and quantity of parts desired.*

The Donaldson Torit Warranty

Donaldson does not warrant against damages due to corrosion, abrasion, normal wear and tear, product modification, or product misapplication. Donaldson also makes no warranty whatsoever as to any goods manufactured or supplied by others including electric motors, fans and control components. After Donaldson has been given adequate opportunity to remedy any defects in material or workmanship, Donaldson retains the sole option to accept return of the goods, with freight paid by the purchaser, and to refund the purchase price for the goods after confirming the goods are returned undamaged and in usable condition. Such a refund will be in the full extent of Donaldson's liability. Donaldson shall not be liable for any other costs, expenses or damages whether direct, indirect, special, incidental, consequential or otherwise. The terms of this warranty may be modified only by a special warranty document signed by a Director, General Manager or Vice President of Donaldson. Failure to use genuine Donaldson replacement parts may void this warranty. THERE EXIST NO OTHER REPRESENTATIONS, WARRANTIES OR GUARANTEES EXCEPT AS STATED IN THIS PARAGRAPH AND ALL OTHER WARRANTIES INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHETHER EXPRESS OR IMPLIED ARE HEREBY EXPRESSLY EXCLUDED AND DISCLAIMED.

Donaldson
FILTRATION SOLUTIONS

Parts and Service

For genuine Donaldson replacement filters and parts, call the Parts Express Line. For faster service, have unit's model and serial number, quantity, part number, and description available.

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Donaldson Company, Inc. is the leading designer and manufacturer of dust, mist, and fume collection equipment used to control industrial-air pollutants. Our equipment is designed to help reduce occupational hazards, lengthen machine life, reduce in-plant maintenance requirements, and improve product quality.

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